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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,487	09/26/2000	Ivy Pei-Shan Hsu	M-8639 US	4335

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Seth H. Ostrow, Esq.
Brown Raysman Millstein Felder
900 Third Avenue
New York, NY 10022

EXAMINER	
SALAD, ABDULLAHI ELMI	
ART UNIT	**PAPER NUMBER**
2157	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/670,487	HSU ET AL.	
	Examiner	Art Unit	
	Salad E Abdullahi	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32,34-40,42-47,49-61 and 63-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32, 34-40 and 42-47, 49-61 and 63-69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. The Amendment filed 3/31/2004 has been received and made of record

2. Claim 1-32, 34-40 and 42-47, 49-61 and 63-69 are pending. The rejection cited stated below.

3. Applicant's arguments with respect to claims 1-32, 34-40 and 42-47, 49-61 and 63-69 have been considered but are not persuasive for the following reasons.

Applicant alleges " in Logan there is no load balancing switch configured as proxy to an authoritative DNS server". Examiner respectively disagrees, because Logan clearly teaches a load balancing switch (106) which act as an authoritative DNS server (see col. 4, lines 30-36).

Furthermore, server [the load balancing switch 106, includes a proxy functionality for proxying the authoritative name server (see col. 4, lines 30-36, where the switch 108 acts as i.e., on behave of the authoritative name server), also the load balancing switch 108: receives name resolution requests for the authoritative name server (col. 3, lines 11-13), receives responses from the authoritative name server (col. 3, lines 23-26), collects performance metric of the network, arranges a list of IP-addresses from the authoritative name server and sends the ordered list to the client (see the abstract and col. 3, lines 8-25), therefore, the load balancing switch acts as proxy to the authoritative name server, in addition the proxy functionality of the load balancing switch 108 corresponds of the proxy functionality as described in the instant application (see specification page 7, lines 8-17)] (see also col. 5, lines 3-59).

As per applicant's argument the authoritative name server is distinct from the load balancing switch (see fig. 2, where authoritative name server(site switch 202) is distinct from the load balancing switch (106) (see also fig. 2, and col. 6, lines 14-41);

Claim Rejections - 35 USC 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371□ of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claim 1-32, 34-40 and 42-47, 49-61 and 63-69 are rejected under 35 U.S.C. 102 (e) as being anticipated by Logan et al., U.S. Patent No. 6,578,066.

As per claim 1, Logan et al., disclose a switch-based server load balancing system (108) which is termed as server-switch for providing load balancing among host servers (204) in a computer network (104) and a plurality of site switches (202), the server-switch provides server related traffic management for monitoring the health of the servers and switching for dynamically distributing load among servers (see col. 1, lines

48-61), the server-switch uses a domain name server (i.e., an authoritative domain name server) to respond domain name look up request for a particular host name say www. Alteon.com, then when the server-switch receives a domain name request to resolve a host name it will determine an appropriate authoritative domainname serverr which can resolve the request using variety of performance metrics including the health of the network, response time and throughput of the servers (col. 5, lines 46-65), and then the server-switch sends the response from authoritative domain name server back to the client local domain name server with the IP-address in an ordered list (see col. 3, lines 9-25), the method comprising:

- coupling said load balancing switch (108) between said computer network (104) and an authoritative domain name server [the authoritative domain name server which is not explicitly shown on the figures is part of the distributed site 100, see fig. 1, col. 3, line 39 to col. 4, line 36 and col. 5, lines 19-59, which describes the existence of a single authoritative name serve for every sub-domain www.alteon.com represented by the system 100, also Logan describes the switch sends the response from the authoritative domain name server back to the client (see col. 3, lines 8-25) which indicates the switch is coupled (connected) to the authoritative name server] and configuring said load balancing switch (108) as a proxy (acts as) to said authoritative name server [the load balancing switch 108, includes a proxy functionality for proxying the authoritative name server (see col. 4, lines 30-36, where the switch 108 acts as i.e., on behave of the authoritative name server), also the load balancing switch 108:

receives name resolution requests for the authoritative name server (col. 3, lines 11-13), receives responses from the authoritative name server (col. 3, lines 23-26), collects performance metric of the network, arranges a list of IP-addresses from the authoritative name server and sends the ordered list to the client (see the abstract and col. 3, lines 8-25), therefore, the load balancing switch acts as proxy to the authoritative name server, in addition the proxy functionality of the load balancing switch 108 corresponds of the proxy functionality as described in the instant application (see specification page 7, lines 8-17)] (see also col. 5, lines 3-59).

- coupling each of said host servers (204) to said computer network (104) through said site switches (202) (see fig. 2, and col. 6, line 14-41);
- collecting at said load balance switch a first set of performance metrics (i.e. health check among the load balancing server switches) regarding said network (see col. 5, lines 3-65 and col. 6, lines 14-41);
- whenever said authoritative domain name server provides network addresses in response to a query regarding a domain name (see col. 11, 51 to col. 12, and col. 5, lines 45-59);
- arranging at said load balancing switch said network addresses as an ordered list in accordance with said performance metrics (see the abstract and col. 3, lines 9-25 and col. 6, lines 14-41);
- forwarding said ordered list of network addresses as a response to said query to an originator of said query (see col. 11, line 51 to col. 12, line 4).

In considering claim 2, Logan et al., discloses a distributed load balancing system further comprising:

collecting a second set of performance metrics (i.e. response time minimum delay, least cost) regarding said network, said second set of performance metrics reflecting access conditions (load, throughput or availability) to said host servers (204-212) at each of said site switches (202) (see fig. 2, and col. 6, line 14-41);

sending said second set of performance metrics from said site switches (204-212) to said load balancing switches (108, 106, 110)(see col. 6, line 14-41); and

including said second set of performance metrics with said first set of performance metrics [that is the load balancing switch including second performance metric i.e. response time received from site switches 202 with first performance metric i.e. health of the network or in other wards combing several performance metric to determine best site or server](see col. 5, lines line 46 to col. 6, line 3 and col. 11, line 50 to col. 6, line 4).

In considering claim 3, Logan et al., disclose a distributed load balancing system wherein said first set of performance metrics includes a health check sent from said load balancing switch to each of said site switches (see col. 5, line 60 to col. 6, line col. 6, line 3, and col. 6, lines 14-41).

In considering claim 4, Logan et al., disclose a distributed load balancing system wherein, when any of said host servers fails said health check, a network address of said failed host server is provided a lesser position in said ordered list (see col. 11, line 41 to col. 12, line 3).

In considering claim 5, Logan et al., discloses a distributed load balancing system, wherein said collection of said second set of performance metrics includes recording, at each site switch, a number of sessions(connections) connected to host servers having network addresses configured on said site switch (that is determining if host servers reach at there respective Maximum connection)(see col. 5, lines 38-45 and col. 9, lines 1-35).

In considering claim 6, Logan et al., discloses a distributed load balancing system wherein when said number of sessions (connection) at said site switch exceeds a predetermined percentage of that site switch's maximum capacity, a corresponding one of said network addresses is provided a lesser position in said ordered list [i.e. ordering the list of IP addresses for host server 210, 204, 206, and 208 in order of priority, the 900 msec response time of server 210 gets highest position] (see col. 6, lines 14-41 and col. 9, lines 5-35).

In considering claim 7, Logan et al., discloses a distributed load balancing system, wherein said collecting said second set of performance metrics includes recording, at

each site switch, a round trip time indicative of elapse time (response time) for exchanging messages between each site switch and a client machine of said computer network (see col. 5, lines 3-59).

In considering claim 8, Logan et al., discloses a system, wherein said round trip time (response time) being an actual recorded time period between said site switch receiving a connection request from said client machine and said site switch receiving an acknowledgment of a connection from said client machine (current measured response time includes the transmitting a packet or request and receiving response i.e., acknowledgment), (see col. 5, lines 3-59 and col. 6, lines 14-41).

In considering claim 9, Logan et al., discloses a system wherein said arranging takes into consideration the geographical location of said originator of said query (see col. 10, lines 6-65).

In considering claim 10, Logan et al., discloses a system, wherein said collecting of said first set of performance metrics includes recording a time interval for each site switch between said load balancing switch initiating said health check and said load balancing switch receiving a response from said site switch (see col. 5, line 3 to col. 6, lines 13).

In considering claim 11, Logan et al., discloses a system, wherein said arranging selects a network address of a least recently selected host server for placement at a

higher position in said ordered list (i.e. host with 900 msec response time is the least selected host and is positioned highest on the list)(see col. 6, lines 14-41).

In considering claim 12, Logan et al., discloses a system, further comprising said load balancing switch limiting a valid time (TTL) for each network address in said ordered list to less than predetermined value (see col. 11, lines 9-13).

In considering claim 13, Logan et al., discloses a system, further comprising, when a connection request is received at a site switch for a connection to one of said host servers, said site switch redirecting said connection request to another one of said host servers (see col. 5, lines 38-45 and col. 10, line 66 to col. 11, line 9).

As per claim 14, Logan et al., disclose a system for load balancing among host servers(204) in a computer network, comprising:

- an authoritative domain name server [the authoritative name server not shown explicitly on the figures is part of the distributed site 100, (see fig. 1, col. 3, line 39 to col. 4, line 36 and col. 5, lines 19-59), which describes the existence of a is a single authoritative name serve for every sub-domain www.alteon.com represented by the system 100, also, as discussed above the Logan describes the switch sending the response from the authoritative domain name server back to the client indicates the authoritative name server is part of the distributed network (see col. 3, lines 9-25)];

- load balancing switch (108) coupled to authoritative domain name server (the switch using an authoritative name server to resolve name resolutions resolution and sending the response from the authoritative domain name server back to the client indicates the authoritative name server is part of the distributed network and coupled to the authoritative domain name server] (see col. 3, lines 9-25 and col. 5, lines 46-59); and
- (a) configuring said load balancing switch (108) as a proxy to said authoritative domain name server [the load balancing switch 108, includes a proxy functionality (i.e., policy management/policy manager) for proxying the authoritative name server (see col. 4, lines 35-36, col. 5, lines 3-30), also the load balancing switch 108: receives name resolution requests for the authoritative name server (col. 3, lines 11-13), receives responses from the authoritative name server (col. 3, lines 23-26), collects performance metric of the network, arranges a list of IP-addresses from the authoritative name server and sends the ordered list to the client (see the abstract and col. 3, lines 8-25), therefore, the load balancing switch acts as proxy to the authoritative name server, in addition the proxy functionality of the load balancing switch 108 corresponds of the proxy functionality as described in the instant application (see specification page 7, lines 8-17)] (see also col. 5, lines 3-59).
- (b) collecting a first set of performance metrics regarding said network [health and throughput] (see col. 5, line 60-65);

- (c) arranging a list of network addresses from said authoritative domain name server in accordance with first set performance metrics (see the abstract and col. 5, lines 3-65 and col. 6, lines 14-41);
- a plurality of site switches (202) coupling said host servers (204-212) to said network (see fig. 2 and col. 6, lines 14-36).

In considering claim 15, Logan et al., discloses a distributed load balancing system further comprising:

collecting a second set of performance metrics (i.e. response time minimum delay, least cost) regarding said network, said second set of performance metrics reflecting access conditions (load, throughput or availability) to said host servers (204) at each of said site switches (202) (see fig. 2, and col. 6, line 14-41);

sending said second set of performance metrics from said site switches (204) to said load balancing switches (108)(see col. 6, line 14-41); and

including said second set of performance metrics with said first set of performance metrics [that is the load balancing switch including second performance metric i.e. response time received from site switches 202 with first performance metric i.e. health of the network or in other wards combing several performance metric to determine best site or server](see col. 5, lines line 46 to col. 6, line 3 and col. 11, line 50 to col. 6, line 4).

In considering claim 16, Logan et al., disclose a distributed load balancing system wherein said first set of performance metrics includes a health check sent from said load balancing switch to each of said site switches (see col. 6, lines 14-41).

In considering claim 17, Logan et al., disclose a distributed load balancing system wherein, when any of said host servers fails said health check, a network address of said failed host server is provided a lesser position in said ordered list (col. 7, lines 10-35 and col. 11, line 41 to col. 12, line 3).

In considering claim 18, Logan et al., discloses a distributed load balancing system, wherein said collection of said second set of performance metrics includes recording, at each site switch, a number of sessions(connections) connected to host servers having network addresses configured on said site switch (that is determining if host servers reach at there respective Maximum connection)(see col. 5, lines 38-45 and col. 9, lines 1-35).

In considering claim 19, Logan et al., discloses a distributed load balancing system wherein when said number of sessions (connection) at said site switch exceeds a predetermined percentage of that site switch's maximum capacity, a corresponding one of said network addresses is provided a lesser position in said ordered list [i.e. ordering the list of IP addresses for host server 210, 204, 206, and 208 in order of priority, the 900 msec response time of server 210 gets highest position] (see col. 6, lines 14-41 and col. 9, lines 5-35).

In considering claim 20, Logan et al., discloses a distributed load balancing system, wherein said collecting said second set of performance metrics includes recording, at each site switch, a round trip time indicative of elapse time (response time) for exchanging messages between each site switch and a client machine of said computer network (see col. 5, lines 3-59).

In considering claim 21, Logan et al., discloses a system, wherein said round trip time being an actual recorded time period between said site switch receiving a connection request from said client machine and said site switch receiving an acknowledgment of a connection from said client machine (response time includes the transmission time, the processing time, transmission time back to the originator), (see col. 5, lines 3-59 and col. 6, lines 14-41).

In considering claim 22, Logan et al., discloses a system wherein said arranging takes into consideration the geographical location of said originator of said query (see col. 10, lines 6-65).

In considering claim 23, Logan et al., discloses a system, wherein said collecting of said first set of performance metrics includes recording a time interval for each site switch between said load balancing switch initiating said health check and said load balancing switch receiving a response from said site switch (see col. 5, line 3 to col. 6, lines 13).

In considering claim 24, Logan et al., discloses a system, wherein said arranging selects a network address of a least recently selected host server for placement at a higher position in said ordered list (i.e. host with 900 msec response time is the least selected host and is positioned highest on the list)(see col. 6, lines 14-41).

In considering claim 25, Logan et al., discloses a system, further comprising said load balancing switch limiting a valid time (TTL) for each network address in said ordered list to less than predetermined value (see col. 11, lines 9-13).

In considering claim 26, Logan et al., discloses a system, further comprising, when a connection request is received at a site switch for a connection to one of said host servers, said site switch redirecting said connection request to another one of said host servers (see col. 5, lines 38-45 and col. 10, line 66 to col. 11, line 9).

In considering claims 27, 42 and 56, Logan et al., disclose a method, a system and a computer program for providing load balancing among a plurality of host servers (204-212) in a computer network, the method comprising:

- receiving a request at a load balancing switch from a client relating to any one of the plurality of host servers (see fig. 3, and col. 11, lines 51 to col. 12, line 4);
- forwarding the request to an authoritative name server(site switch 202) distinct from the load balancing switch (106) (see fig. 2, and col. 6, lines 14-41);

- identifying at the authoritative domain name system server one or more of the plurality of host servers (see fig. 3, and col. 11, lines 51 to col. 12, line 4);
- ordering the one or more host servers at the load balancing switch based on performance metrics including at least a round trip time associated with the client (see fig. 3, and col. 11, lines 51 to col. 12, line 4); and
- sending a response to the client including information associated with each of the one or more identified host servers (see fig. 3, and col. 11, lines 51 to col. 12, line 4).

In considering claims 28, 43, 57, Logan et al., disclose a system, wherein access to each of the plurality of host servers (204) is controlled by one of a plurality computers (202), and wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics collected from each of the plurality of computers (col. 11, lines 51 to col. 12, line 4 and col. 6, lines 13-41).

In considering claims 29, 44 and 58, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics collected from each of the plurality of computers, wherein the performance metrics collected from each of the plurality of computers include an indication of whether the number of sessions communicating through the respective computer exceeds a predetermined threshold [i.e. reach Maximum Connection/capacity], (see col. 5, lines 38-45 and col. 9, lines 5-11).

In considering claims 30, 45 and 59, Logan et al., disclose a system, wherein the receiving comprises receiving a request from the client to resolve a domain name associated with any one of the plurality of host servers (see col. 11, lines 51-67).

In considering claims 31, 46 and 60, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics including an indication of the health of one or more of the plurality of host servers (see col. 2, lines 11-16 and col. 5, line 60-65).

In considering claims 32, 47 and 61, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics including an indication of the health of an application on one or more of the plurality of host servers (see col. 2, lines 11-16 and col. 5, line 60-65).

In considering claims 33, 48 and 62, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics collected from each of the plurality of computers, wherein the performance metrics collected from each of the plurality of computers include an indication of whether the number of sessions communicating through the respective computer exceeds a predetermined threshold [i.e. reach Maximum Connection/capacity], (see col. 5, lines 38-45 and col. 9, lines 5-11).

In considering claims 34, 49 and 63, Logan et al., discloses a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics including a geographical location associated with one or more of the plurality of host servers (see col. 10, lines 6-65).

In considering claims 35, 50 and 64, Logan et al., discloses a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics collected from each of the plurality of computers, wherein the performance metrics collected from each of the plurality of computers include an indication of the available session capacity of the respective computer [response time indicate available capacity of the server e.g. lower response time indicate more sessions available], (see col. 6, lines 14-41).

In considering claims 36, 51 and 65, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on performance metrics collected from each of the plurality of computers, wherein the performance metrics collected from each of the plurality of computers include a time required by the respective computer to provide an indication of the health of a host server access to which is controlled by the respective computer (site switch 202, providing the response times of the host server 204-212), (see col. 6, lines 14-41).

In considering claims 37, 52 and 66, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host computers based on performance metrics collected from each of the plurality of computers, wherein the performance metrics collected from each of the plurality of computers include a time required by the respective computer to provide an indication of the health of an application on a host server access to which is controlled by the respective computer (see col. 2, lines 11-16 and col. 5, line 60-65).

In considering claims 38, 53 and 67, Logan et al., disclose a system, wherein the identifying comprises identifying one or more of the plurality of host servers based on the number of times each of the one or more plurality of host servers has been previously identified (i.e. the number of connection or number of request received by a host server number of times a host is previously identified) (see col. 9, lines 5-35)

In considering claims 39, 54 and 68, Logan et al., disclose a system, wherein the sending comprises sending a response to the client including information associated with each of the one or more identified servers, wherein the information includes one or more network address each of which is associated with one of the one or more identified host servers (see fig. 3 and col. 11, lines 51 to col. 12, line 4).

In considering claims 40, 55 and 69, Logan et al., disclose a system, wherein the sending comprises sending a response to the client including information associated

with each of the one or more identified servers, wherein the information includes one or more network address each of which is associated with one of the one or more identified host servers, and wherein the one or more network addresses are ordered based on the performance metrics (see the abstract and col. 10, lines 52-65).

In considering claim 42, Logan et al., disclose a system for providing load balancing among a plurality of host servers (204) in a computer network, the method comprising:

- plurality of computers (202) each of which controls access to one or more of the host servers (204) (see fig. 2 and col. 6, lines 16-42);
- wherein at least one of the plurality of computers is configured to receive the performance metric collected by each of the other computers of the plurality of computers and in response to a request received from a client relating to any of the plurality of host servers, to identify one or more plurality of host servers based on performance metrics collected by itself and received from each other of the plurality of computers and to send a response to the client including information associated with each of the one or more identified host server (that is the load balancing switch collecting first performance metric i.e. health of the network and performance metric collected by servers 202 related response time and throughput of host servers 204)(see figs. 2 and 3, col. 6, lines 14-41 and col. 11, lines 51 to col. 12, line 4).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONCLUSION

7. The prior art made of record and relied upon is considered pertinent to the applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abdullahi E. Salad** whose telephone number is **(703) 308-8441.** The examiner can normally be reached on Monday to Friday from **8:30 AM to 5:00 PM**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Etienne, Ario** can be reached at **(703)308-7562.** Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is **(703)305-3900.**

Any response to this action should mailed to:

Box AF
Commissioner of Patents and Trademarks
Washington, DC 20231
or faxed to: (703) 872-9306

Abdullahi salad
AU 2157
9/17/2004

ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100